

Effects of adding midazolam to intrathecal bupivacaine on pain after cesarean section

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*Abstract

Background: Midazolam is one of the most commonly used benzodiazepines in anesthesia that has recently been considered as an analgesic in intrathecal block.

Objective: The aim of this study was to determine the effects of adding midazolam to intrathecal bupivacaine on the pain after cesarean section.

Methods: This clinical trial was conducted in 60 patients undergoing cesarean section with spinal anesthesia in 2009. The patients were randomly allocated to two groups. One group received 10 mg bupivacaine plus 0.02 mg/kg midazolam intrathecally while other group received 10 mg bupivacaine plus 0.5 ml distilled water intrathecally. The duration of anesthesia, time of the first analgesic request, and total consumption of analgesic in the first 24 hours after cesarean section were recorded. Data were analyzed using T-test, Mann Whitney U test and Wilcoxon test and chi-square test.

Findings: Duration of anesthesia in the patients receiving midazolam was significantly longer than the control patients (209 min vs. 192 min). The mean time of the first analgesic request was also significantly longer in the patients receiving midazolam compared to the control patients (283 min vs. 235 min). Total analgesic consumption in 24 hours after surgery was significantly lower in the midazolam group compared to the control group (2 times vs. 2.5 times).

Conclusion: With regards to the results, adding 0.02 mg/kg intrathecal midazolam to bupivacaine increased duration of anesthesia and time of the first analgesic request following cesarean section compared to bupivacaine alone.

Keywords: Midazolam, Pain, Spinal Injections, Cesarean Section, Bupivacaine

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